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DISCOVERIES AND CURRENT EVENTS *

Argentine Republic: *Melampsora larici-populina* in the Delta of Paraná †

Last summer an intense attack of poplar rust was observed in the first section (Río Luján, Canal Arias, Arroyo Carabelas, etc.) of the Islands of the Delta of Paraná. As this was a phenomenon entirely new to the country, the Phytopathological Division of the 'Dirección de Sanidad Vegetal' sent me to the place and the following observations were made.

The poplar most cultivated is that known as 'Italian poplar' (*Populus nigra* var. *italica*) in which, in all cases, the presence of the rust was observed though the intensity of the attack varied in the various localities.

In this way, in the plantations in which the attack was slight the tree resisted the parasite and appeared to be luxuriant and with full foliage while other trees were completely defoliated and appear to have entered the resting period before the season.

From the above it may be seen that the gravity of this disease is not the same in all localities. Environmental conditions (humidity and temperature), always favourable to the development of fungi in the Delta, varied from year to year and from zone to zone (conditions of cultivation, density of the plantation, presence of irrigation channels, etc.) and the intensity of the development of the disease was in direct relation to these variations.

The poplar rust appeared, from its characters, to be *Melampsora larici-populina*, Kleb. The uredospores were ellipsoidal or oblong, echinulate, orange yellow, 28-35 × 14-19 μ. The teleutospores were prismatic, rounded on both ends, very light brown, 36-50 × 8-10 μ.

The teleutospores were always on the upper side of the leaves.

In many cases, much more serious attacks by parasites other than rust were observed, namely: *Septoria populi*, Desm., *Cercospora populina*, Ell. and Ev., *Sphaceloma populi*, (Sacc.) Jenkins, being the diseases most commonly associated with the poplar rust. The presence of a *Phyllosticta* was also determined and, on the branches, a *Dothichiza* similar to *D. populea*, Sacc. and Br., causing cankers and which may have serious results.

The conclusions are:—

(1) The poplar rust was present in all cases though not with the same intensity in the whole zone.

* Under this and the next heading the countries are arranged in French alphabetical order.

† Communication from Mr. ROBERTO FRESA, Agronomical 'Ingénieur', transmitted by the official correspondent of the Institute, Mr. JUAN B. MARCHIONATTO, Agronomical 'Ingénieur', Director of 'Sanidad Vegetal', Ministry of Agriculture, Buenos Aires, Argentine Republic.

(2) Other parasites were determined to be present accompaning the rust and occasionally attacking with greater intensity.

(3) The rust life cycle was not complete.

Southern Rhodesia: Locust Invasion, 1932-36 *

Monthly Report No. 41. April, 1936.

During April, 1936 no winged swarms have been reported in the Colony.

Outbreaks of Red Locust (*Nomadacris septemfasciata*) hoppers have been dealt with in the following districts, namely:— Makoni, Hartley, Salisbury, Darwin, Selukwe, Mrewa, Charter, Chibi, Gwelo, Belingwe and Nyamandhlovu.

Hoppers in an advanced stage were reported up to the end of the month.

The outbreaks in general have been comparatively light and in all accessible places have been effectively suppressed.

No disease or parasite attack has been recorded during the month.

LEGISLATIVE AND ADMINISTRATIVE MEASURES

Germany. — The Ministerial Circular II/2-654 of 1 March, 1936, gives instructions on the subject of the application of the provisions of 23 December, 1935, relative to the control of grape phylloxera [see this *Bulletin*, 1936, No. 4, pp. 79-80].

In respect of the control of non-European vines from the view point of the presence of phylloxera galls on the leaves, the new regulation corresponds, in general, to the Ministerial Circular of 2 November, 1933 [see this *Bulletin*, 1934, No. 2, pp. 36-37] which it completes in certain details.

With regard to the destruction of winter eggs it is recommended, in places where, owing to the nature of the land or the method of cultivation, the application of a layer of earth is impracticable, to treat the woody parts of the vine with carbolineum at 5 % or with other suitable preparations. Sprayings should be carried out during the first half of March. The sprayer should be brought close to the vine which should be sprayed copiously and at high pressure. (*Amtliche Pflanzenschutzbestimmmungen*, Berlin, 1. April 1936, Bd. VIII, Nr. 2, S. 37-39).

*** By Ordinance of 12 March, 1936, the general provisions regulating the seed certification have been re-enacted. The provisions in force in this respect since 15 April, 1935 [see this *Bulletin*, 1935, No. 7, p. 156] have been revoked. (*Ibid.*, S. 40).

*** By Decree of 16 March, 1936, modifying paragraph 3 of the dispositions of 21 November, 1917 relative to agents of disease, it is prohibited to use bacterial preparations in the control of animal pests. (*Ibid.*, S. 39).

* Communication from the official correspondent of the Institute, Mr. Rupert W. Jack, F. E. S., Chief Entomologist, Agricultural Laboratory, Department of Agriculture, Salisbury, Southern Rhodesia.

*** A Decree of 18 March, 1936, based on the Law of 26 June, 1935 on the protection of natural sites and rare plants and animals [see this *Bulletin*, 1935, No. 10, pp. 226-227, and 1936, No. 1, p. 7], contains detailed provisions relative to the protection of plants and animals in the wild state. (*Ibid.*, S. 40-51).

*** The instructions for the management of custom-houses (' Anleitung für die Zollabfertigung '), a new edition of which appeared in April, 1936, contain a complete collection of the phytosanitary regulations refering to the importation and exportation of living plants and parts of living plants, and particularly all provisions concerning protection against San José scale [*Aspidiotus perniciosus*] and apple fruit-fly [*Rhagoletis pomonella*], adding to the regulations, assembled in the unique text published on 18 May, 1934 [see this *Bulletin*, 1934, No. 10, p. 221], the subsequent modifications of 22 June and 23 November, 1934; 21 February and 12 March, 1935 [see this *Bulletin*, 1934, No. 11, p. 247; 1935, No. 4, p. 85; No. 5, p. 109; No. 7, p. 156 respectively]. (*Ibid.*, 1. Mai 1936, Nr. 3, S. 78).

Germany (Bavaria). — By Police Ordinance of 7 February, 1936, relative to the protection against cherry fruit fly (*Rhagoletis cerasi*), it is prescribed in certain communes, to uproot, before 31 December, 1936, all honeysuckle shrubs (' Heckenkirsche ') either cultivated or growing wild. The mazzards should also be removed. These trees may be preserved if they are intended for grafting or if they are ornamental trees. In this case, however, all fruits should be collected and destroyed when green.

All the cherries and griottes should be harvested as soon as possible before they are completely ripe. All fallen fruit should be collected and destroyed.

Trees which on account of their height do not allow the fruit to be collected should be cut down or reduced to such a height that the fruit may be completely harvested. (*Gesetz-und Verordnungs-Blatt für den Freistaat Bayern*, München, 27. Februar 1936, Nr. 6, S. 21-22).

Germany (Hamburg). — By Decree of 30 March, 1936, relative to preventing the introduction of the needle cast of Douglas fir [*Rhabdocline pseudotsugae*], the sale of plants of *Pseudotsuga* is only permitted on condition that they have been examined by the Plant Protection Service and recognised as being free from this disease. (*Amtliche Pflanzenschutsbestimmungen*, Berlin, 1. Mai 1936, Bd. VIII, Nr. 3, S. 78).

Germany (Oldenburg). — By Notification of 3 March, 1936, relative to the trade in potatoes for planting, it is prescribed that the potatoes sold on the market as being potatoes resistant to wart disease [*Synchytrium endobioticum*] should be officially certified as such. Their origin should be accurately known and certified on request by the dealer.

The various varieties should be carefully separated in the ware-housing localities. The name of each variety should be indicated in writing. The places of sale should be provided with a label stating that the varieties on sale are resistant to wart disease and that they are subject to official supervision from the point of view of cleanliness. Dealers are obliged to take 30 tubers as sam-

ples from each lot on arrival at their warehouses and to send them to the Central Plant Protection Station. They should possess and keep up to date a register wherein the place of origin of the potatoes may be entered, the supplier, the quantity delivered and the result of the official control.

The dealer is obliged to deliver to every buyer of potatoes resistant to wart disease a certificate containing all the required guarantees. (*Amtliche Pflanzenschutzbestimmungen*, Berlin, 1. April 1936, Bd. VIII, Nr. 2, S. 55-57).

England. — The Cabbage Aphis (Redfordshire, Cambridgeshire and Huntingdonshire) Order of 1936, which came into operation on 1 March, 1936, enables action to be taken with a view to reducing the damage caused by the prevalence of the Cabbage Aphis [*Brevicoryne brassicae*] to the vegetable crops (Brussels Sprouts, Broccoli, Cabbages, Kales, Turnips or other Brassica crops) grown in the district comprising the whole of the counties of Bedford and Huntingdon, including the Boroughs of Bedford and Luton, and that part of the county of Cambridge that lies mainly to the west of the main Royston – Huntingdon Road. (*The Gardeners' Chronicle*, London, March 7, 1936, Vol. XCIX (Third Series), No. 2567, pp. 146-147).

*** As a consequence of the spread of the Colorado beetle [*Leptinotarsa decemlineata*] into Belgium, the Importation of Plants (Amendment) Order of 1936, dated 3 April, 1936, imposes from 1 May, 1936 restrictions on the importation into England from Belgium of certain kinds of horticultural produce.

The following is a summary of the provisions of the new Order:—

(*a*) A Colorado beetle certificate in one of two forms is required to accompany living plants, potatos, raw vegetables and cider apples imported from Belgium.

(*b*) The alternative forms of Colorado beetle certificate are (1) that the produce is grown outside a radius of fifty kilometres from an outbreak; (2) that the importation is permitted by a general licence granted by the Minister of Agriculture and Fisheries, and that the conditions laid down in the licence have been observed. Alternative (2) is not applicable to potatos; it is, however, extended to produce (except potatos) from France.

(*c*) Flower bulbs, cucumbers and mushrooms are exempted from the requirement in (*a*) above and this exemption is extended to such produce from France as well as Belgium.

(*d*) The requirement in (*a*) applies, so far as raw vegetables and cider apples are concerned, only during the period 21 April to 14 October in any year.

(*e*) Certificates of origin for cucumbers and mushrooms will no longer be required where such produce is grown in countries other than France and Belgium. (*Statutory Rules and Orders, 1936, No. 313. Destructive Insect and Pest, England. The Importation of Plants (Amendement) Order of 1936. Dated April 3, 1936.* (*D. I. P. 588*), London, 1936, 3 pp.).

*** The sale, or exposure for sale, for planting of any plants substantially attacked by certain pests and diseases has been prohibited for some 15 years under the sale of Diseased Plants Order of 1927 and earlier Orders of 1921 and 1922.

A new Order entitled the Sale of Diseased Plants (Amendment) Order of 1936 and dated 27 February, 1936 extend the provisions of the 1927 Order.

From 1 May, 1936, it will be an offence to sell, offer or expose for sale, or, after sale, to deliver, for planting, any plant which is substantially affected by any of the following diseases or pests:— Fruit Tree Cankers, American Gooseberry Mildew [*Sphaerotheca mors-uvae*], Silver Leaf [*Stereum purpureum*], Black Currant Mite [*Eriophyes ribis*], Woolly Aphis [*Eriosoma lanigerum*], all Scale Insects [*Coccidae*], Brown Tail Moth [*Nygmia phaeorrhoea*], Rhododendron Bug [*Stephanitis rhododendri*] and Powdery Scab of Potatos [*Spongospora subterranea*]; any plant which bears evidence of having been substantially affected by the Apple Capsid [*Plesiocoris rugicollis*]; any Tomato or Cucumber plant substantially affected by the greenhouse White Fly [*Trialeurodes vaporariorum*]; and any Potato or Narcissus or Daffodil plants or bulbs which are visibly rendered unfit for planting by reason of their being, or having been, affected by any insect or pest. (The expression 'plant' includes tree and shrub, and the seeds, tubers, bulbs, layers, cuttings or any other parts of a plant). (*Statutory Rules and Orders, 1936, No. 163. The Sale of Diseased Plants (Amendment) Ordes of 1936. Dated February 27, 1936.* (*D. I. P. 587*), London, 2 pp.).

Angola. — By 'Portaria' No. 1:177 of 1 April, 1933, it is forbidden to export maize found to be attacked *inter alia* by 'gorgulho', or damaged by any other cause. (República Portuguesa. Colónia de Angola. *Boletim da Direcção dos Serviços de Agricultura e Comércio*, Luanda, 1935, año VI, n.os 20 a 23 [janeiro a dezembro de 1933], págs. 182-183).

*** As the presence of a certain number of parasites was observed in the plantations situated in the area of the 'Intendência do Algodão', and as it was absolutely necessary for this reason to take measures to prevent propagation, the 'Diploma Legislativo' No. 503 of 26 August, 1933, established 1 October of each year as the last date for uprooting and burning cotton plants in the area of the said 'Intendência'. (*Ibid.*, pag. 191).

*** By virtue of the 'Diploma Legislativo' No. 505 of 2 September, 1933, there was opened in favour of the Direction of Agricultural and Commercial Services, a special credit of 300,000 Ags. for covering the expenditure on locust control for the year 1933. (*Ibid.*, pag. 192).

*** By virtue of the 'Portaria' 1:272 of 23 September, 1933, a sum of 20,000 Ags. was granted to the permanent fund administered by the Director of locust control for the purpose of covering urgent and unexpected expenses. (*Ibid.*, pag. 196).

*** The 'Diploma Legislativo' No. 543 of 30 December, 1933, revoked the 'Diploma Legislativo' No. 483 of 19 May, 1933, which opened a special credit of 300,000 Ags. for covering the expenditure necessary for the locust control. A credit of 205,544.34 Ags. was opened for covering expenditure incurred in the locust control up to 30 June, 1933. (*Ibid.*, pags. 207-208).

Argentine Republic. — The Decree No. 76.347 of 7 February, 1936, permits the inclusion in a single application of all species of fruit which are embarked and destined for consumption [see this *Bulletin*, 1936, No. 5, p. 101] on board the same ship, to the amount of 1.500 kilos; the presentation of a certificate of origin is not required in this case. The certificate which is granted will be intended for the custom-house authorities in order for permission to be given to embark the fruit. (*Boletín Oficial de la República Argentina*, Buenos Aires, 2 de mayo de 1936, año XLIV, núm. 12.442, pág. 12).

*** The Decree No. 76.656 of 13 February, 1936, authorises the Department of Agriculture to expend the sum of 100.000 ' pesos ' for covering the expenditure incurred in salaries paid to the staff of the Phytopathological Laboratories installed at Mendoza, San Juan and Río Negro, by virtue of the provisions contained in the Law No. 12.150 and expenditure derived from the execution the work of sanitary inspection of fresh fruit. (*Ibid.*, 7 de mayo de 1936, núm. 12.556, págs. 199 y 200).

Australia (Commonwealth of). — By Quarantine Proclamation No. 7P of 11 September, 1935, the weed pests specified in the Schedule to this Proclamation are declared to be diseases affecting plants.

The introduction into Australia of the weed pests specified in the Schedule to this Proclamation is prohibited, if the proportionate amount of seeds of any pest in any sample when mixed with other seeds, shall exceed the proportion specified in the Schedule to this Proclamation.

The proportions specified in the Schedule shall be calculated on the following basis:—

(*a*) In the case of oats, barley, wheat, buckwheat, vetches, and other seeds of similar or larger size, the number of weed seeds allowed in one pound weight (avoirdupois) of such crop seed shall be as prescribed in the Schedule.

(*b*) In the case of seeds other than those mentioned in (*a*), the number of weed seeds allowed in one ounce (avoirdupois) of such seed, shall be as prescribed in the Schedule.

THE SCHEDULE.

Weed pests and maximum number of seeds of each allowed in imported seed.

Acacia armata R. Br.	Prickly acacia	20
Acaena ovina A. Cunn.	Sheep's burr	20
Allium rotundum L.	Garlic	10
Amaranthus albus L.	Common tumbleweed	50
Amaranthus paniculatus L.	Panicled amaranth	50
Ammi spp.	Bishop's weed	10
Amsinckia spp.	Yellow burr weeds	10
Anagallis arvensis L.	Pimpernel	200
Anthemis cotula L.	Stinking mayweed or Fetid chamomile	10
Anthemis nobilis L.	Common chamomile	10
Argemone mexicana L.	Mexican poppy	50
Aster subulatus Michx.	Bushy starwort	10
Astragalus mollissimus Torr.	Woolly loco weed	10
Atriplex patula L.	Spreading saltbush	50
Avena barbata Brot.		50
Avena fatua L.	Wild or black oat	50

Bartschia (all spp.)	Sticky weeds	50
Bassia quinquecuspis F. Muell.	Roly poly	100
Brassica (all weed species)	. . . .	20
Bulbine semibarbata Haw.	Leek lily	10
Bupleurum protractum Hoffm. & Link	Hare's ear	20
Bupleurum semicompositum L.	Dwarf hare's ear	20
Calandrinia caulescens H. B. K.	Purple Calandrinia	20
Calendula arvensis L.	Wild marigold	20
Calycotome spinosa Link	Spiny broom	20
Camelina sativa Crantz	False flax	10
Carduus pycnocephalus Jack	Slender thistle	10
Carex spp.	Sedges	300
Cassinia arcuata R. Br.	Chinese scrub	20
Caucalis nodosa Scop.	Knotted hedge-parsley	50
Cenchrus spp.	. .	5
Chenopodium album L.	Fat hen	200
Chenopodium murale L.	Nettle-leaved goosefoot	200
Chenopodium vulvaria L.	Stinking goosefoot	50
Cichorium intybus L.	Chicory	50
Cirsium lanceolatum L. (syn. *Carduus lanceolatus*)	Spear thistle, black thistle	10
Convolvulus spp. (except *C. arvensis*)	Bindweeds	10
Crepis virens L.	Smooth hawk's beard	10
Crotalaria sagittalis L.	Rattlebox	10
Cucumis myriocarpus Naud.	Paddy melon	5
Cyperus rotundus L.	Nutgrass	5
Cytisus canariensis L.	Cape broom	50
Cytisus scoparius Link	English broom	50
Digitaria sanguinalis Scop.	Summer grass	100
Diodia teres Walt.	Rough button weedor Poverty weed	10
Diplotaxis muralis DC.	Sand rocket	100
Diplotaxis tenuifolia DC.	Wall rocket	100
Echium spp.	Bugloss	5
Eichhornia speciosa Kunth.	Water hyacinth	10
Emex australis Steinh.	Spiny Emex	5
Eragrostis cilianensis Link	Stink grass	200
Erechtites valerianaefolia DC.	Brazilian fireweed	20
Erigeron canadensis L.	Canada fleabane	100
Erigeron linifolius Willd.	Flax-leaved fleabane	100
Erodium cicutarium L'Hérit.	Crowfoot	100
Erodium moschatum L'Hérit.	Musky crowfoot	100
Erophila vulgaris DC.	Common rocket	50
Eruca sativa Mill.	Rocket	20
Erysimum cheiranthoides L.	Treacle mustard	10
Erysimum repandum L.	Mustard	10
Euphorbia helioscopia L.	Sun spurge	20
Euphorbia peplus L.	Petty spurge	50
Foeniculum vulgare Mill.	Fennel	10
Fumaria officinalis L.	Fumitory	50
Fumaria parviflora Lam.	Small flowered fumitory	50
Galinsoga parviflora Cav.	Potato weed	50
Galium aparine L.	Cleavers	50
Galium murale All.	Small bedstraw	50
Galium tricorne Stokes	Rough fruited corn, Bedstraw	50
Geranium molle L.	Crane's-bill	100
Gladiolus cuspidatus Jacq.	Wild gladiolus	5
Gomphocarpus spp.	. .	20
Grindelia squarrosa Dunal	Broad-leaved gum-plant	10
Hedypnois cretica Willd	Drumsticks or cretan weed	50
Helenium autumnale L.	Sneezeweed	20
Hibiscus trionum L.	Bladder ketmia	20

Hypochaeris glabra L.	Smooth cat's ear	100
Hypochaeris radicata L.	Cat's ear	100
Inula graveolens Desf.	Stinkwort	50
Iva xanthifolia Nutt.	Marsh elder or false sunflower	5
Juncus capitatus Weigel	Capitate rush	100
Lactuca spp.	Wild lettuce	10
Lamium amplexicaule L.	Deadnettle	50
Lantana spp.		5
Lapsana communis L.	Nipplewort	20
Lavandula stoechas L.	Topped lavender	50
Lepidium incisum Roth	Apetalous peppergrass	100
Linaria elatine Mill.	Toadflax	100
Linaria spuria Mill.	Cancerwort	100
Linum spp.	Flax	10
Lithospermum arvense L.	Corn cromwell, take-all weed	5
Lobelia syphilitica L.	Great Lobelia	20
Lolium temulentum L.	Drake, darnel	50
Lupinus luteus L.	Yellow lupin	10
Madia sativa Molina	Pitch weed	20
Malva nicaeënsis All.	Mallow of Nice	100
Malva parviflora L.	Small-flowered mallow	100
Malva rotundifolia L.	Dwarf mallow	100
Malva sylvestris L.	Common mallow	100
Malva verticillata L	Whorled mallow	100
Marrubium vulgare L.	Horehound	5
Matricaria spp.	Chamomile	10
Melanthium virginicum L.	Bunchflower	10
Modiola multifida Moench	Red-flowered creeping mallow	200
Neslia paniculata Desv.	Ball mustard	100
Nicotiana glauca R. Grah.	Wild tobacco plant, tree tobacco	5
Oenothera biennis L.	Evening primrose	50
Orobanche cernua Loefl.	Broom rape	50
Oxalis cernua Thunb.	South African wood sorrel	50
Oxytropis lambertii Pursh.	Stemless loco weed	400
Papaver dubium L.	Long-headed poppy	400
Papaver hybridum L.	Rough-headed poppy	400
Papaver rhoeas L.	Field poppy	50
Phytolacca decandra L.	Pigeon berry	50
Phytolacca octandra L.	Inkweed	50
Picris spp.	Ox tongue, hawkweed	20
Plantago lanceolata L.	Rib grass	200
Plantago major L.	Broad-leaved plantain	100
Plantago patagonica Jacq.	Bracted plantain	100
Plantago psyllium L.	Fleawort plantain	100
Plantago rugelii Decne.	Rugel's broad-leaved plantain	100
Polygonum spp.	Wireweed	30
Portulaca oleracea L.	Purslane	100
Ranunculus spp.	Crowfoot or buttercup	20
Reseda alba L.	White mignonette	20
Rhagadiolus hedypnois All.	Hawkbit	20
Rhus toxicodendron L.	Poison ivy	5
Rumex acetosella L.	Sheep sorrel	200
Rumex spp. (all species of *Rumex* except *Rumex acetosella*)	Docks	20
Salpichroa rhomboidea Miers	Pampas lily of the valley	5
Salvia sylvestris	Wild sage	50
Salvia verbenaca L.	Wild sage	50
Saponaria officinalis L.	Soapwort	50
Scabiosa maritima L.	Pincushion	50
Scandix pecten-veneris L.	Shepherd's needle or Venus comb	50
Scirpus spp.	Rush	50
Senebiera coronopus Poir.	Swine's cress	100
Senebiera pinnatifida DC.	Lesser swine's cress	100

Senecio spp.	Groundsel	100
Setaria glauca Beauv.	Pigeon grass	400
Setaria verticillata Beauv.	Whorled Setaria	400
Setaria viridis Beauv.	Pigeon grass or green foxtail	400
Sherardia arvensis L.	Field madder	10
Silene conica L.	Striated catchfly	100
Silene dichotoma Ehrh.	Two-branched catchfly	100
Silene gallica L.	French catchfly	100
Silene noctiflora L.	Night-flowering catchfly	100
Sisymbrium spp.	Mustards	20
Solanum spp.		20
Sonchus asper Hill.	Prickly sow thistle	100
Sonchus oleraceus L.	Sow thistle	100
Sorghum halepense Pers.	Johnson grass	5
Spergula spp.	Spurry	50
Stachys arvensis L.	Stagger weed	20
Stellaria media Vill.	Chickweed	200
Tagetes spp.	Marigolds	5
Triumfetta rhomboidea Jacq.	Chinese burr	10
Ulex europaeus L.	Furze or gorse	5
Urospermum picroides F. W. Schmidt		50
Urtica spp.	Nettles	10
Veratrum viride Ait.	American hellebore	10
Verbascum spp.	Mulleins	100
Verbena bonariensis L.	Purple top, vervain	50
Verbena supina L.	Trailing vervain	100
Watsonia meriana Mill.	Merian's bugle lily	5
Zygadenus venenosus S. Wats.	Death chamomile	5

(*Commonwealth of Australia Gazette*, Canberra, 26th September, 1935, No. 51, pp. 1382-1383).

*** By Quarantine Proclamation No. 8P of 11 September, 1935 the importation into Australia of the following plants except in accordance with the provisions of the Quarantine (Plants) Regulations is prohibited:—

(1) Tobacco seed.

(2) Cotton seed and cotton lint (raw cotton).

(3) Potatoes.

(4) Peanuts (the seed in shell).

(5) Plants or parts of plants of species of *Vitis* including the fruit.

(6) Citrus fruits from any country in which Citrus Canker (*Pseudomonas citri*) does not exist, and seeds of citrus plants from any country.

(7) Hops which are the commercial product of plants grown in countries other than those known to be free from Downy Mildew [*Pseudoperonospora humuli*] or Mosaic diseases.

(8) Nursery stock and cuttings and scions of same. (*Ibid.*, 19th September, 1935, No. 49, pp. 1339-1340).

*** By Quarantine Proclamation No. 9P of 11 September, 1935 is prohibited the importation into Australia of the following plants:—

(1) All stone fruit trees or parts thereof which were grown in any country in which any of the diseases known as Peach Yellows, Peach Rosette, Little Peach or Phony exists. For the purposes of this prohibition any State of the United States of America is deemed to be a country;

(2) All gooseberry plants or parts thereof from any country in which *Sphraerotheca mors-uvae* (American Gooseberry Mildew) exists;

(3) All plants or parts thereof, including fruit or seeds (other than manufactured products thereof) liable to infestation with any species of *Hemileia* from any country in which *Hemileia* exists;

(4) all sugar cane and banana plants exclusive of the fruit of the latter, grown in any country in which boring beetles of the genus *Sphenophorus, Cosmopolites* or *Rhabdocnemis* exists;

(5) Broom millet;

(6) All tobacco plants or parts of tobacco plants exclusive of the seed and the dried and prepared leaf ready for manufacturing purposes;

(7) Any plant (including any root, pad, cutting or seed) of the family *Cactaceae*, except seed of free flowering or ornamental species and varieties other than of the genera *Opuntia* and *Nopalea*;

(8) Peanut plants of any species of *Arachis*, exclusive of the fruit (peanuts) thereof;

(9) Chestnut plants or parts of chestnut plants including the fruit or nuts from any part of the world;

(10) Plants of the genus *Humulus* (with the exception of the dried flower cones(known in commerce as 'hops') grown in any country in which either Downy mildew (*Pseudoperonospora humuli*) or Mosaic exists;

(11) Citrus plants including the fruits but exempting the seeds, from any country in which Citrus Canker (*Pseudomonas citri*) exists.

The term citrus, shall comprise plants of the tribe *Citrinae* only, that shall comprise the following genera: *Citropsis, Citrus, Eremocitrus, Fortunella, Microcitrus, Monanthocitrus, Pleurocitrus* and *Poncirus*;

(12) All plants of the family *Ulmaceae* including seeds and cuttings from Europe;

(13) All plants or parts of plants (including the fruit but exempting the seeds) of the family *Rosaceae* from any country in which Fire Blight [*Bacillus amylovorus*] exists. (*Ibid.*, p. 1340).

*** By Quarantine Proclamation No. 10P of 11 September, 1935 is prohibited:—

(*a*) The removal of cotton plants, cotton seed or cotton lint from any part of Western Australia north of latitude twenty-six degrees south, into any other part of the Commonwealth (excepting the Northern Territory of Australia) or from any part of the Northern Territory of Australia into any other part of the Commonwealth, provided that the cotton seed or cotton lint may be removed if it is treated in accordance with the conditions prescribed in the Quarantine (Plants) Regulations;

(*b*) The removal of all citrus plants or parts thereof, including the fruit, and seeds of the sub-family *Citratae* from the Northern Territory of Australia into any other part of the Commonwealth;

(*c*) The removal into the State of Western Australia of—

(i) Apples, pears and quinces from any other part of the Commonwealth to prevent the introduction of the Codling Moth [*Cydia pomonella*] and of

(ii) Grape vines from the State of Queensland, New South Wales and Victoria on account of *Phylloxera vastatrix*;

(*d*) The removal into the State of South Anstralia of grape vines or parts thereof from the States of Queensland, New South Wales and Victoria. (*Ibid.*, p. 1340).

*** By Quarantine Proclamation No. 11P of 11 September, 1935, in order to prevent the introduction of the Codling Moth (*Cydia pomonella*) is prohibited the importation into the State of Western Australia of—

(*a*) Walnuts from the State of California wherever such walnuts may have been grown;

(*b*) Walnuts grown in the State of California wherever such walnuts may have been shipped. (*Ibid.*, p. 1341).

*** By Quarantine Proclamation No. 12P of 11 September, 1935 it is enacted that the Minister of State for Health may permit the importation into Australia or the removal from any part of the Commonwealth to any other part of the Commonwealth of any plants or goods or parts of plants for scientific purposes or in special circumstances, subject in all cases to any conditions which he may think fit to impose. (*Ibid.*, p. 1341).

Belgium. — The Royal Decree of 26 March, 1936, primarily provides for the re-organisation and functioning of the Special Service of Phytopathological Inspection.

Plants imported for transit remain only subject to the conditions prescribed by Article 6 of the Royal Decree of 15 September, 1885, putting into effect in Belgium the International Grape-Phylloxera Convention.

Other dispositions of the present Decree regulate the importation and exportation of horticultural plants, nursery stock, and other products determined by the Minister of Agriculture.

The Royal Decrees of 8 November, 1912, 31 January, 1914, 2 May, 1921, 2 September, 1922, 31 May, 1923, 13 May, 1929 and 11 July, 1933, relative to the Special Phytopathological Service are revoked. (*Moniteur Belge*, Bruxelles, 26 avril 1936, 106e année, nº 117, p. 3259-3261).

*** By Ministerial Decree of the same date, the Ministerial Decrees of 28 March and 30 November, 1928, 29 February, 18 April and 14 May, 1932, 10 April, 20 June, 14 July and 28 December, 1933, 17 January, 3 April, 24 December and 31 December, 1935, relative to the application of the Royal Decree of 2 September, 1922 or of 13 May, 1929, are maintained in force. (*Ibid.*, p. 3261).

Belgian Congo. — By Decree No. 8/Agri. of the Commissioner of the province of Coquilhatville, dated 10 January, 1936, every grower of cotton, native or non-native, in the district of Congo-Ubangi is obliged, within 15 days following the harvest, to uproot and destroy by fire the cotton plants grown during the season 1935-36. (*Bulletin Administratif du Congo Belge*, Léopoldville-Kalina, 10 mars 1936, 25me année, nº 5, p. 106).

Scotland. — By the Importation of Plants (Scotland) (Amendment) Order of 1936, dated 6 January, 1936, and for the prevention of the introduction of virus diseases of sugar beet and mangold, the landing in Scotland from any country other that England or Wales, Northern Ireland, the Irish Free State, the Isle of Man or the Channel Islands of any living plant of sugar beet or mangold (of the species *Beta vulgaris* L.) is prohibited except under and in accordance with the conditions of a licence issued by the Department of Agriculture for Scotland or by an Inspector of this Department. (*Statutory Rules and Orders, 1936,* $\frac{No.\ 7}{S.\ 1}$. *Destructive Insect and Pest, Scotland. The Importation of Plants (Scotland) (Amendment) Order of 1936. Dated January 6, 1936,* London, 1936, 2 pp.).

*** The Sale of Diseased Plants (Scotland) Order of 1936, dated 14 April, 1936, prohibits the sale or movement of various plants affected by the following pests: fruit tree cankers (caused by any parasitic fungi or bacteria), American gooseberry mildew (*Sphaerotheca mors-uvae*), silver leaf (*Stereum purpureum*), black currant mite (*Eriophyes ribis*), woolly aphis (*Eriosoma lanigerum*), all scale insects (*Coccidae*), brown tail moth (*Nygmia phaeorrhoea* = *Euproctis chrysorrhoea*), rhododendron fly (*Leptobyrsa* [*Stephanitis*] *rhododendri*), onion and leek smt (*Urocystis cepulae*) and apple capsid (*Plesiocoris rugicollis*). (*Statutory Rules and Orders, 1936,* $\frac{No.\ 341}{S.\ 13}$. *Destructive Insect and Pest, Scotland. The Sale of Diseased Plants (Scotland) Order of 1936. Dated April 14, 1936,* London, 1936, 4 pp.).

*** The Importation of Plants (Scotland) (Amendment) No. 2 Order of 1936, dated 17 April, 1936, contains restrictions on the landing in Scotland of plants, potatoes, raw vegetables and cider apples grown in Belgium, exemption of flower bulbs, cucumbers and mushrooms, also restrictions on the landing in Scotland of plants and raw vegetables grown in European France. (*Statutory Rules and Orders, 1932,* $\frac{No.\ 252}{S.\ 14}$. *Destructive Insect and Pest, Scotland. The Importation of Plants (Scotland) (Amendment) No. 2 Order of 1936. Dated April 17, 1936,* London, 1936, 3 pp.).

Spain. — By Decree of 21 February, 1936, the Institute of Agronomical Research, abolished on 16 October, 1935, and re-established by Decree of the Ministry of Agriculture, Industry and Commerce, dated 31 December, 1935, includes among its other activities the following:—

(*f*) Investigation of the etiology of diseases attacking cultivated plants, of parasitic and non-parasitic origin, classification and study of pests and testing of therapeutic or biological methods for their prevention or control.

The Institute will be divided into 9 Sections and 3 sub-Sections attached to the Presidency. The 8th Section is the Phytopathological Section.

The Central Station of Phytopathology, Madrid, will direct this Section.

The establishments which will carry out the function of experimental collaboration and divulgation and will be attached to the Phytopatholo-

gical Section, will be the Stations of Phytopathology at Almeria, Badajoz, Barcelona, Burjasot, Coruña, Santander, Sevilla, Zaragoza, and Valladolid. (*Gaceta de Madrid*, 22 febrero 1936, año CCLXXV, tomo I, núm. 53, págs. 1523 a 1526).

France. — A Ministerial Decree of 14 March, 1936, demarcates the zones declared infested by the Colorado beetle [*Leptinotarsa decemlineata*] and the zones of protection. Previous Ministerial Decrees relating to the same question are revoked. (*Journal Officiel de la République française*, Paris, 19 avril 1936, LXVIII[e] année, nº 93, p. 4191-4204).

*** By Law of 24 May, 1936, Article 2102 of the civil code has been modified with a view to giving to traders in fertilisers, products for improvement purposes and for the control of plant diseases and pests the priviledges accorded for the provision of seeds and for the costs of harvesting during the year. (Ministère de l'Agriculture. Direction de l'Agriculture. *Bulletin de l'Office de Renseignements Agricoles*, Paris, 1[er] avril 1936, année 1936, nº 7, p. 124).

Latvia * — New instructions concerning the phytosanitary control of nurseries have been published in the *Valdības Vēstnesis* (No. 97 of the year 1936).

Nurseries should be inspected at least twice a year by an expert authorised by the Ministry of Agriculture. One of these inspections will take place at the period when the trees are sold and the other during the period of vegetation. The expert will examine the sanitary condition of the trees and will communicate the result of the inspection to the Ministry of Agriculture.

When he observes in a nursery the presence of one of the parasites or pests mentioned below, the expert will order the destruction of the trees attacked. All owners of nurseries who wish to contest the decision of the expert will have the right to demand another inspection which will be carried out by a Commission appointed by the Ministry of Agriculture. The decision of this Commission will be final.

Apple, pear, plum and cherry trees will be destroyed if attacked by *Aspidiotus ostreaeformis*, *Lepidosaphes ulmi*, *Stereum purpureum*, *Pseudomonas tumefaciens* and root rot. Apple and pear trees attacked by *Nectria galligena* and *Physalospora cydoniae*. Also pear trees if the branches are seriously attacked by *Fusicladium pirinum*. Finally, cherry trees the branches of which are attacked by *Monilia cinerea*.

The trees infested by *Pseud. tumefaciens* will be destroyed if the collar is attacked or if the roots are seriously deformed.

*** The Latvian Federation of Agricultural Associations having been dissolved as from 1 March 1936, the Institute of Plant Protection has passed under the direction of the Chamber of Agriculture of Latvia.

Luxemburg (Grand Duchy of). The Ministerial Decree of 27 February, 1936, establishes the following :—

Art. 1. — All persons who observe the presence of the Colorado beetle [*Leptinotarsa decemlineata*] in their cultivations or storehouses are obliged to

* Communication from the official correspondent of the Institute, Professor MAX EGLITS, Phytopathological Cabinet of the University, Riga, Latvia.

declare same to the burgermaster of the commune who will telegraph the information to the Department of Agriculture at Luxembourg.

Art. 2. — Potato crops and other Solanaceous plants declared infested by the Colorado beetle may be subjected to special treatments.

The same applies to Solanaceous plants growing in land surrounding the infested area.

Art. 3. — The agents entrusted with the control of the Colorado beetle are authorised to have free access, between sun-rise and sun-down, to fields and gardens infested or suspected of being infested for the purpose of carrying out the measures provided for by Art. 2 of the present Decree.

In addition, all owners or occupiers of land planted with potatoes or other Solanaceous plants are obliged to be subject to the measures of control and supervision considered necessary by the agents of the service for the control of the Colorado beetle.

Art. 4. — The Director general entrusted with agricultural affairs may forbid the cultivation of potatoes or other Solanaceous plants on land where the presence of the Colorado beetle has been observed or suspected or he may constrain the land owner to limit the cultivation of potatoes.

Art. 5. — It is forbidden for anyone to have or transport living Colorado beetles or eggs or larvae of this insect.

It is also forbidden to transport haulms of potatoes or other Solanaceous plants originating from land where the presence of the Colorado beetle is observed or suspected.

Art. 6. — The police, both local and otherwise, will be at the service of the agents entrusted with the control of the Colorado beetle to insure that the measures prescribed by the latter will be carried out.

Art. 7. — The members of the Commission for the improvement of crops are appointed as agents of the service entrusted with the control of the Colorado beetle and also of the phytopathological service and their agents.

Art. 8. — Infractions of the present Decree will be punished according to the penalties provided for in Art. 3, of the Law of 15 March, 1892, concerning the destruction of insects and plants harmful to agriculture. (*Mémorial du Grand-Duché de Luxembourg*, Luxembourg, 29 février 1936, nº 14, p. 163-164).

Morocco (French Zone). — The Decree of 10 March, 1936, relative to the control of lemons for export, establishes, *inter alia*, that fruits showing injuries caused by frost or sirocco, indications of internal or external parasites, especially Mediterranean fruit fly [*Ceratitis capitata*], or unhealed wounds, will be prohibited. (Empire chérifien. Protectorat de la République française au Maroco. *Bulletin Officiel*, Rabat, 20 mars 1936, XXVe année, nº 1221, p. 348-349).

Rumania * — With a view to preventing the spread of white pine blister rust (*Cronartium ribicola*), by Ministerial Decision No. 93554 of 5 May, 1936, it is forbidden to introduce into the country young plants or seeds of *Pinus strobus*,

* Communication from the official correspondent of the Institute, Professor Georges Arion, Chief of the Plant Protection Service, Ministry of Agriculture and Domains, Bucarest, Rumania.

P. lambertiana, *P. flexilis*, *P. monticola* and *P. cembra* var. *sibirica* for a period of five years as from the date of the present Decision.

The entire stocks of plants of the above mentioned species existing in infested nurseries will be destroyed by fire.

The cultivation of these pines in infested nurseries is forbidden for a period of five years.

In addition to the above dispositions, all other measures considered necessary will be taken for the purpose of preventing the spread of the disease.

Uruguay. — By Decree No. 632/936 of 11 March, 1936, the Plant Pathology and Entomological Division is placed under the control of the ' Sección Fomento de Defensa Agrícola ' and its functions are specified. (*Diario Oficial de la República Oriental del Uruguay*, Montevideo, 26 de marzo de 1936, tomo 122, núm. 8879, pág. 417-A).

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NOTES

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